



# HF Happenings 532

November 2012

## The SARL Digital Contest

The aim is to establish as many contacts as possible between radio amateurs in Southern Africa using the PSK31 / RTTY mode. The contest is open to all radio amateurs in Southern Africa (General Rule 1.b).

The last contest of 2012 takes place from 13:00 UTC to 16:00 UTC [15:00 to 18:00 CAT] on Sunday 2 December with PSK31 and RTTY activity on 80 metres [3 580 to 3 600 kHz], 40 metres [7 040 to 7 060 kHz] and 20 metres [14 070 to 14 099 kHz]. PSK31 is preferred at the lower end of the specified frequencies. RTTY is preferred at the upper end of the specified frequencies. Please note that USB must be used at all times. Refer to General Rule 16.

A station may be contacted twice on each band, once on RTTY, once on PSK31. The exchange is a signal report plus a sequential serial number starting at 001.

Contacts with stations listed in General Rules 1.b are worth 3 points and contacts with stations **NOT** listed in General Rules 1.b are worth 1 point. The first contact with each area listed below will be used as a band multiplier.

Area 1: ZS1; Area 2: ZS2; Area 3: ZS3; Area 4: ZS4; Area 5: ZS5; Area 6: ZS6; Area 7: 3DA, 7P, 7Q, 9J, C9, A2, D2, V5, Z2, ZD7, ZD9, ZS7, ZS8, FR, 3B8, 5R, FH and D6; Area 8: Stations in the rest of the world.

The scoring is Band total = QSO points x number of call areas worked per band. The final score = sum of the band totals. Logs shall be submitted within 7 days after the contest and can be sent by mail to the West Rand Amateur Radio Club, PO Box 5344, Weltevredenpark, 1725 or by e-mail to [contest@sarl.org.za](mailto:contest@sarl.org.za)

South African Radio League  
Suid-Afrikaanse Radioliga

Member Society of the International Amateur Radio Union since 1925

[www.sarl.org.za](http://www.sarl.org.za); [www.iaru.org](http://www.iaru.org)  
[www.iaru-r1.org](http://www.iaru-r1.org)

## How to send @ or % in Morse Code

Many of those proficient in Morse might be stumped when it comes to sending @ or %, fortunately the ITU-R recommendation on International Morse Code provides an answer. The ITU Radiocommunication Sector (ITU-R) is one of the three sectors (divisions or units) of the International Telecommunication Union (ITU) and is responsible for radio communication.

Recommendation ITU-R M.1677-1 (10/2009) confirms the International Morse code characters and the operational provisions applying to their use in radiocommunication services.

The Morse code for @ is .- - .-

For the percentage sign % there is no corresponding signal in the Morse code and they recommend that the figure 0, the fraction bar and the figure 0 shall be transmitted successively. A whole number, a fractional number or a fraction, followed by a % sign, shall be transmitted by joining up the whole number, the fraction number or the fraction to the % by a single hyphen. For 2% you would transmit 2-0/0

The ITU-R International Morse Code Recommendation M.1677-1 (10/2009) can be downloaded in Word or PDF format from <http://www.itu.int/rec/R-REC-M.1677-1-200910-I/en>





Other ITU-R M Series Recommendations are available at <http://www.itu.int/rec/R-REC-M/en>

### *HF noise measuring receiver project*

Chris, G4HYG, brings news of the internet linked HF noise measuring SDR receiver project he is working on.

The project I am working on is a HF noise measuring SDR receiver (or transceiver) and a SDR program to accurately measure HF noise levels and send reports to the APRS internet system so that the data can be viewed and stored for later analysis.

The receiver monitors five channels with a 500 Hz receiver bandwidth. There are three fixed channels 6,990, 10,090 and 13,4 MHz and two user defined channels. For testing I am monitoring 10,1 MHz (DDK-9 10 kW weather RTTY from Hamberg 500 miles due east) and 8,0396 MHz (GYA weather fax) with the user-defined channels.

Each RF channel is monitored for 2 minutes. Five hundred (500) samples of the RF level are taken. The median level is calculated and every 10 minutes the data is sent as a telemetry packet to the APRS internet system. A message with peak, median and minimum levels is also sent to Gwyn Williams, G4FKH, for his research project on HF noise.

A prototype receiver has been running for over six weeks and its telemetry graphs can be viewed at this web page <http://aprs.fi/telemetry/a/G4HYG-5>. The page starts up with graphs of the last 48 hours but it is possible to select the last day, week, month and year as well. Some interesting events can already be seen in the graphs over the last month.

On 14 November after the CME from the Sun, no signal was heard from DDK-9 all day due to a radio fade out. Typically, it is 40 dB above the noise.

Two hundred metres from my antenna is a school. From 28 October when school started after half term, my noise level rose by 5 dB on 30 m and 3 dB on 20 m.

The intention is in the new year to start producing the SDR receiver with a CW transmitter with a iambic memory keyer added to the program. The idea is to have a unit that radio amateurs can use for normal amateur use and then leave running in noise measurement mode at other times.

More information (slightly dated now) is available at [http://www.crosscountrywireless.net/noise\\_measurement\\_program.htm](http://www.crosscountrywireless.net/noise_measurement_program.htm)

Information on the Noise Measuring Campaign by Chelmsford amateur Gwyn Williams, G4FKH, is at <http://g4fkh.co.uk/projects/noise-measuring-campaign/>

### *RF Spreadsheet now online*

Andy Foad, GOFTD, has made a collection of RF calculations available in a spreadsheet. Amongst the calculations are:

RF Loss through concrete; Barometric pressure conversions; Maidenhead distance and beam heading calculator; Audio filters (RC networks); Unknown feeder impedance calculator; Loop antenna impedance calculator; FM bandwidth (Carson's rule) now includes modulation index;

#### *November*

24 and 25 – CQ WW DX Phone Contest

28 – SARL 80 m Club Contest, CW

#### *December*

1 – World Aids Day

2 – SARL Digital Contest

2 Dec to 6 Jan – Garden of Lights, the garden of Vespasian, Peermont D'oreale Grande Hotel

3 – International Day of Persons with Disabilities

7 – Schools close

8 and 9 – ARRL 10 metre Contest

16 – Day of Reconciliation

17 – Public Holiday

17 to 22 – Blaauklippen Family Christmas Market, Stellenbosch

25 – Christmas Day

26 – Day of Goodwill

29 to 31 – Vic Falls Carnival 2012, Victoria Falls, Zimbabwe

31 – New Year's Festival of Lights, Nieu-Bethesda





L-network matching component values; Capacitive and inductive reactances; Bandwidth tuned circuit; Radio range and VHF/UHF/Microwave; Freespace path loss; Resonance series tuned circuit; Resonance // tuned circuit; Power received from tx to rx; Groundwave range calculation; Near field (REACTIVE) region of an antenna; Calculation of skin effect on conductors (2 methods); Series Resistance calculator for LED's, Lamps and crude nicad charging; Impedance calculator including phase and power factor and relative SWR; Quarter wave transformer calculator; Electrical quarter wave calculator; Impedance of custom air spaced coax; Air spaced capacitor designer; All of Ohms law and power laws; Conversion of AC and DC values RMS etc; Conversion of milliwatts to dbm; Conversion of dbuV to dbm; Amidon cores inductance designer and related info included; Power and voltage decibel ratio's; Coax losses and approx capacity per 30 cm; Coax voltage breakdown and capacity per foot; Single layer air cored inductance designer; Capacitor markings guide; Spark Gap Distances; Resonant speaker tubes to act as CW peak filters; db versus multiplication factor both power and voltage; Galactic noise levels; uV to dbm converter; Milliwatts to dbm converter. You can download the spreadsheets from <https://sites.google.com/site/g0ftdradio/home/rf-spreadsheets>

### *Marlon Brando's Shack*

Back in the 80s, Fernando, EC1AME, was reading the Spanish magazine HOLA and found a very interesting article about Marlon Brando's island in the Pacific... Among the pics, I spotted two amateur radio related ones... So, I kept the article. Now I have found it again and it is a pleasure to share those pics with you all.

As you may already know, Marlon Brando was FO5GJ while in Tahiti and he was on the air under the name of Martin Brandeaux. His private island will be a luxury resort in 2013. So, it's a perfect moment to remember how it looked in the 80s. You can see the pics here <http://www.ealuro.com/web2/foro/index.php?topic=2003.0>

### *Super Check Partial database*

Bob, WA1Z, says a new release of the Super Check Partial database files is now available at <http://www.supercheckpartial.com>. Calls in the MASTER.DTA file: 44 295 and calls in the MASTERTTY.DTA file 11 939.

If you would like to contribute your Cabrillo format logs for the SCP database, please send them at any time. The easiest thing to do is to cc [logs@supercheckpartial.com](mailto:logs@supercheckpartial.com) when you submit your log to the sponsor's robot after each contest.

Also, if you have any VHF+ contest logs, Dave, W9ZRX, maintains a VHF+-only SCP Database. You can cc your VHF+ contest logs submissions to [zephhd@indy.rr.com](mailto:zephhd@indy.rr.com). The VHF SCP Website is <http://www.k3lr.com/w9zrx/> (the last slash is important).

If you want to check the version of the SCP files you are using, look for a call beginning with "VER". Every SCP file includes the version number in the list of calls - VERYYYYMMDD. Please let me know if you find any bad calls in the files.

### *Country (CTY) Files Updated*

The Country (CTY) Files were updated on 19 November 2012 <http://www.country-files.com/cty/> To install the file, follow the link to your software at the top of the page. If you are interested in a bigger CTY.DAT for everyday logging, you can get it here <http://www.country-files.com/bigcty/>. Note that the release notes (and Version Entity) for this larger file are different than what is shown below. There is a separate link to them.

Here are the release notes: 19 November 2012 (CTY-2220) Version entity is Bulgaria, LZ. Jim Reisert AD1C, [jjreisert@alum.mit.edu](mailto:jjreisert@alum.mit.edu), <http://www.ad1c.us>





## African DX

Tunisia, 3V. SWL Ashraf "Ash", 3V4-002 (KF5EYY), will be active as 3V8BB from the "Institute Supérieur de L'Animation Pour la Jeunesse et la Culture" in Bir El Bay, Tunis, during the CQ WW DX CW Contest (24 and 25 November) as a Single-Op/All-Band/Low-Power entry. QSL via LoTW or to LX1NO. Read about Ashraf on <http://www.qsl.net/3v4-002>

Morocco, 5G, (Special Event). Special event station 5G12ITD is now active until 16 December. Activity is to celebrate "International Tolerance Day" by UN members on 16 November. Operations will be on all bands and modes. QSL via RW6HS.

Senegal, 6W. Jeff, N1SNB, will be active prior to the contest next weekend as 6W7/N1SNB. QSL (non-contest only) via NOTG.

Zambia, 9J. Niko, S53A, will be active as 9J3A from the Kafue National Park between 21 and 26 November. This is his fifth operation from Zambia. Activity will be mostly during the CQ WW DX CW Contest (24 and 25 November) as a Single-Op, possibly as a Single-Band (10 m) or All-Band (depending on conditions)/Low-Power entry. He will operate from the rain forest, under the tent, with a generator. There is no electricity, nor a Cell-Phone signal. He will be running 100 w into a SpiderBeam and some fixed loops. QSL via S57S (not S53A, not S57A), directly or by the Bureau (a very long wait, see details on QRZ.com). LoTW will be updated a few months after his return home. This could be a very dangerous operation with a lot of poisonous insects, snakes, crocodiles, wild pigs or even lions could visit a tent in the middle of the night. (Africa is a tough country!)

African Tour - Western. Peter, HA3AUI, is once again heading to Western Africa in early 2013. Look for him to be active as 6W2SC from Senegal and J5UAP from Guinea-Bissau sometime between 17 January and 10 March (tentative dates). Peter has used these call signs before. His stays in Cabrousse, Senegal (6W), will be very near to the border of Varela, Guinea-Bissau (J5), and he plans to make regular trips to J5-land for the beautiful beaches there (plans also to operate from there). Using his Elecraft K3 with 500w into a 5-Band Spiderbeam and verticals, Peter's activity will be on 40 - 10 metres, mainly on CW and the Digital modes, but he may use the other modes possibly on request. He will also try to activate some IOTAs and WFF references. QSL direct via HA3AUI or use his OQRS (available after his return). Visit his Web site at <http://cqafrika.net>

## African Islands

Mauritius, 3B. There is a newly licensed ham on the beautiful island of Mauritius. His name and call sign is Achmed, 3B8BAE, and his 'Elmer' (and father) is a well-known operator Rachid, 3B8FQ. Currently, you may find Achmed active almost daily on 28 491 kHz SSB, at 14:00 UTC, as HF propagation allows. He also plans to be active on CW in the future. Achmed requests, "If you hear me on any mode, please spot 3B8BAE on the DX PacketCluster system, and of course, give me a call. I enjoy meeting new friends!" QSL via his QSL Manager Ron, K5XK, who also handles cards for his Dad, 3B8FQ. Please QSL direct to K5XK with 2 USDs, preferred, although IRCs are also OK. See details on [www.QRZ.com/db/k5xk](http://www.QRZ.com/db/k5xk) for more information. Do not QSL via the Bureau because there is NO BUREAU in Mauritius. In addition, he does not do LoTW or eQSL at this time.







## *Special Event Stations*

### *Other DX*

Afghanistan operation. Mike, KI4MRH, is now active as T6MH from Afghanistan, and expects to be there until October 2013. Activity will be on 80 - 10 metres (no 30 m) using SSB and the Digital modes (PSK-31/PSK-63/JT-65). He will use 100 watts on SSB and 30 watts on Digital modes into a 40 metre Inverted Vee and a 20 metre vertical.

This past week Mike has been very active on 20, 17 and 15 metres using the Digital modes. In addition, OPDX was informed that he now has a QSL Manager, so QSL via W2GR direct w/GSs or IRC and SASE.

Jan Mayen, JX. Svein, LA9JKA, continues to be active as JX9JKA from Jan Mayen (EU-022) until approx 11 April 2013. He operates on SSB and the Digital modes on 160 - 4 metres (also 60 m). QSL via his home call sign direct only (see QRZ.com).

### *Contest Calendar*

This week's contests compiled by Bruce Horn, WA7BNM. The period covered is 19 to 26 November 2012.

#### QRP Fox Hunt

02:00 - 03:30 UTC 21 November

Mode: CW

Bands: 40 m Only

Classes: Single Op - Fox or Hound

Max power: 5 watts

Exchange: RST, state, province or country, name and power output

QSO Points: 1 point per QSO

Multipliers: (none)

Score Calculation: Total score = total QSO points

Submit logs by: 03:30 UTC 22 November 2012

E-mail logs to: (see rules)

Mail logs to: (none)

Find rules at: [http://www.qrpfoxhunt.org/winter\\_rules.htm](http://www.qrpfoxhunt.org/winter_rules.htm)

#### QRP Fox Hunt

02:00 - 03:30 UTC 23 November

Mode: CW

Bands: 80 m Only

Classes: Single Op - Fox or Hound

Max power: 5 watts

Exchange: RST, state, province or country, name and power output

QSO Points: 1 point per QSO

Multipliers: (none)

Score Calculation: Total score = total QSO points

Submit logs by: 03:30 UTC 24 November 2012

E-mail logs to: (see rules)





Mail logs to: (none)

Find rules at: [http://www.qrpfoxhunt.org/winter\\_rules.htm](http://www.qrpfoxhunt.org/winter_rules.htm)

#### NCCC Sprint

02:30 - 03:00 UTC 23 November

Mode: (see rules)

Bands: (see rules)

Classes: (none)

Exchange: (see rules)

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 25 November 2012

E-mail logs to: (none)

Post log summary at: <http://www.hornucopia.com/3830score/>

Mail logs to: (none)

Find rules at: <http://www.ncccsprint.com/rules.html>

#### CQ Worldwide DX CW Contest

00:00 UTC 24 November to 24:00 UTC 25 November

Mode: CW

Bands: 160, 80, 40, 20, 15, 10 m

Classes: Single Op All Band - QRP, Low or High; Single Op Single Band - QRP, Low or High; Single Op Assisted All Band - QRP, Low or High; Single Op Assisted Single Band - QRP, Low or High; Xtreme Single Op; Multi-Single; Multi-Two; Multi-Multi; Xtreme Multi-Op

Max power: HP: 1 500 watts; LP: 100 watts; QRP: 5 watts

Exchange: RST and CQ Zone no

Work stations: Once per band

QSO Points: 0 points per QSO with same country (counts as mult); 1 point per QSO with different country same continent; 2 points per QSO with different country same continent (NA); 3 points per QSO with different continent

Multipliers: Each CQ zone once per band; Each country once per band

Score Calculation: Total score = total QSO points x total mults

Submit logs by: 30 November 2012

E-mail logs to: [cw@cqww.com](mailto:cw@cqww.com)

Web-to-Cabrillo form: [http://www.b4h.net/cabforms/cqwwcw\\_cab.php](http://www.b4h.net/cabforms/cqwwcw_cab.php)

Mail logs to: Paper Logs, Box 481, New Carlisle, OH 45344, USA

Find rules at: <http://www.cqww.com/rules.htm>

[http://www.cqww.com/rules\\_xtreme.htm](http://www.cqww.com/rules_xtreme.htm)

### *Next Week's Contests*

SKCC Sprint, 00:00 - 02:00 UTC 28 November

QRP Fox Hunt, 02:00 - 03:30 UTC 28 November

CWops Mini-CWT Test, 13:00 - 14:00 UTC, 19:00 - 20:00 UTC 28 November and 03:00 - 04:00 UTC 29 November

QRP ARCI Topband Sprint, 00:00 - 06:00 UTC 29 November

RSGB 80 m Club Sprint, CW, 20:00 - 21:00 UTC 29 November

QRP Fox Hunt, 02:00 - 03:30 UTC 30 November

NCCC Sprint, 02:30 - 03:00 UTC 30 November

ARRL 160-Metre Contest, 22:00 UTC 30 November to 16:00 UTC 2 December





ARRL EME Contest, 00:00 UTC 1 December to 23:59 UTC 2 December

Wake-Up! QRP Sprint, 06:00 UTC-06:29 UTC; 06:30 - 06:59 UTC; 07:00 - 07:29 UTC and 07:30 - 08:00 UTC 1 December

Ten-Metre RTTY Contest, 00:00 - 24:00 UTC 2 December

SARL Digital Contest, 13:00 - 16:00 UTC 2 December

ARS Spartan Sprint, 02:00 - 04:00 UTC 4 December

## *History This Week*

A look back at events that made history this week - compiled by the Summerland Amateur Radio Club of Lismore, NSW and Dennis, ZS4BS. The week starting Monday 19 November 2012.

1639 - First observation of the transit of Venus occurred (only two recorded events)

1642 - Abel Janszoon Tasman discovers Van Diemen's Land (Tasmania)

1832 - First streetcar railway in America starts operating in New York City with a 12 c fare

1863 - Patent granted for a process of making colour photographs

1867 - Alfred Nobel invents dynamite

1868 - Louis Ducos du Hauron patents the trichrome colour photo process

1877 - Tom Edison announces his "talking machine" invention

1884 - John B Meyenberg of St Louis patents evaporated milk

1885 - Earliest photograph of a meteor shower made

1906 - International Radio Telecommunications Com adopts "SOS" as new call for help

Items used with acknowledgement to The ARRL Letter, Amateur Radio Newslines, OPDX Bulletin, 425 DX Bulletin, DXNL Bulletin, ARRL DX News, WIA-News, the RSGB News and Southgate ARC

